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<110> Allen, Stephen M.
Hitz, William D.
Rafalski, J. Antoni

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Arg Leu Ile Leu Ala Gly Met Val Ala Gly Gly Val Gln Tyr Gly Trp
         35                  40                  45

Ala Leu Gln Leu Ser Leu Leu Thr Pro Tyr Val Gln Thr Leu Gly Leu
     50                  55                  60

Ser His Ala Leu Thr Ser Phe Met Trp Leu Cys Gly Pro Ile Ala Gly
 65                  70                  75                  80

Leu Val Val Gln Pro Leu Val Gly Leu Tyr Ser Asp Arg Cys Thr Ser
                 85                  90                  95

Arg Trp Gly Arg Arg Arg Pro Phe Ile Leu Thr Gly Cys Met Leu Ile
            100                 105                 110

Cys Val Ala Val Ile Val Val Gly Phe Ser Ser Asp Ile Gly Ala Ala
        115                 120                 125

Leu Gly Asp Thr Lys Glu His Cys Ser Leu Tyr His Gly Pro Arg Trp
    130                 135                 140

His Ala Ala Ile Val Tyr Val Leu Gly Phe Trp Leu Leu Asp Phe Ser
145                 150                 155                 160

Asn Asn Thr Val Gln Gly Pro Ala Arg Ala Met Met Ala Asp Leu Cys
                165                 170                 175

Asp His His Gly Pro Ser Ala Ala Asn Ser Ile Phe Cys Ser Trp Met
            180                 185                 190

Ala Leu Gly Asn Ile Leu Gly Tyr Ser Ser Gly Ser Thr Asn Asn Trp
        195                 200                 205

His Lys Trp Phe Pro Phe Leu Lys Thr Ser Ala Cys Cys Glu Ala Cys
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Ala Asn Leu Lys Gly Ala Phe Leu Val Ala Val Val Phe Leu Val Leu
225                 230                 235                 240

Cys Leu Thr Val Thr Leu Ile Phe Ala Lys Glu Val Pro Tyr Arg Ala
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Asn Glu Asn Leu Pro Thr Thr Lys Ala Gly Gly Glu Val Glu Thr Glu
            260                 265                 270
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Pro Thr Gly Pro Leu Ala Val Leu Lys Gly Phe Lys Asp Leu Pro Pro
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Gly Met Pro Ser Val Leu Leu Val Thr Ala Ile Thr Trp Leu Ser Trp
290 295 300

Phe Pro Phe Ile Leu Tyr Asp Thr Asp Trp Met Gly Arg Glu Ile Tyr
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His Gly Asp Pro Lys Gly Ser Asn Ala Gln Ile Ser Ala Phe Asn Glu
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Gly Phe Ser Ser Phe Leu Ile Glu Pro Met Cys Arg Lys Val Gly Pro
355 360 365

Arg Val Val Trp Val Thr Ser Asn Phe Met Val Cys Val Ala Met Ala
370 375 380

Ala Thr Ala Leu Ile Ser Phe Trp Ser Leu Arg Asp Tyr His Gly Tyr
385 390 395 400

Val Gln Asp Ala Ile Thr Ala Asn Ala Ser Ile Lys Ala Val Cys Leu
405 410 415

Val Leu Phe Ala Phe Leu Gly Val Pro Leu Ala Ile Leu Tyr Ser Val
420 425 430

Pro Phe Ala Val Thr Ala Gln Leu Ala Ala Thr Arg Gly Gly Gly Gln
435 440 445

Gly Leu Cys Thr Gly Val Leu Asn Ile Ser Ile Val Ile Pro Gln Val
450 455 460

Ile Ile Ala Leu Gly Ala Gly Pro Trp Asp Ala Leu Phe Gly Lys Gly
465 470 475 480

Asn Ile Pro Ala Phe Gly Val Ala Ser Ala Phe Ala Leu Val Gly Gly
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Ala Val Ser Ala Gly Gly His
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<212> DNA
<213> Zea mays

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<213> Zea mays

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             20                  25                  30

Phe Ser Leu Leu Gly Leu Pro Leu Ser Ile Thr Tyr Ser Val Pro Phe
         35                  40                  45

Ser Val Thr Ala Glu Leu Thr Ala Gly Thr Gly Gly Gly Gln Gly Leu
     50                  55                  60

Ala Thr Gly Val Leu Asn Leu Ala Ile Val Val Pro Gln Ile Val Val
 65                  70                  75                  80

Ser Leu Gly Ala Gly Pro Trp Asp Ala Leu Tyr Gly Gly Gly Asn Thr
                 85                  90                  95

Pro Ala Phe Val Leu Ala Ser Val Phe Ser Leu Ala Ala Gly Val Leu
            100                 105                 110

Ala Val Leu Lys Leu Pro Lys Leu Ser Asn Ser Tyr Gln Ser Ala Gly
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Phe His Gly Phe Gly
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<213> Zea mays

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Leu Leu Thr Pro Tyr Val Gln Thr Leu Gly Leu Ser His Ala Leu Thr
         35                  40                  45

Ser Phe Met Trp Leu Cys Gly Pro Ile Ala Gly Leu Val Val Gln Pro
     50                  55                  60

Leu Val Gly Leu Tyr Ser Asp Arg Cys Thr Ala Arg Trp Gly Arg Arg
 65                  70                  75                  80

Arg Pro Phe Ile Leu Ile Gly Cys Met Leu Ile Cys Leu Ala Val Ile
                 85                  90                  95

Val Val Gly Phe Ser Ser Asp Ile Gly Ala Ala Leu Gly Asp Thr Lys
            100                 105                 110

Glu His Cys Ser Leu Tyr His Gly Pro Arg Trp His Ala Ala Ile Val
        115                 120                 125

Tyr Val Leu Gly Phe Trp Leu Leu Asp Phe Ser Asn Asn Thr Val Gln
    130                 135                 140

Gly Pro Ala Arg Ala Met Met Ala Asp Leu Cys Gly His His Gly Pro
145                 150                 155                 160

Ser Ala Ala Asn Ser Ile Phe Cys Ser Trp Met Ala Leu Gly Asn Ile
                165                 170                 175

Leu Gly Tyr Ser Ser Gly Ser Thr Asn Asn Trp His Lys Trp Phe Pro
            180                 185                 190
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Phe Leu Met Thr Asn Ala Cys Cys Glu Ala Cys Ala Asn Leu Lys Gly
        195                 200                 205

Ala Phe Leu Val Ala Val Val Phe Leu Ile Met Cys Leu Thr Ile Thr
    210                 215                 220

Leu Phe Phe Ala Lys Glu Val Pro Tyr Arg Gly Asn Gln Asn Leu Pro
225                 230                 235                 240

Thr Lys Ala Asn Gly Glu Val Glu Thr Glu Pro Ser Gly Pro Leu Ala
                245                 250                 255

Val Leu Lys Gly Phe Lys Asn Leu Pro Thr Gly Met Pro Ser Val Leu
            260                 265                 270

Leu Val Thr Gly Leu Thr Trp Leu Ser Trp Phe Pro Phe Ile Leu Tyr
        275                 280                 285

Asp Thr Asp Trp Met Gly Arg Glu Ile Tyr His Gly Asp Pro Lys Gly
    290                 295                 300

Ser Asn Ala Gln Ile Ser Ala Phe Asp Glu Gly Val Arg Val Gly Ser
305                 310                 315                 320

Phe Gly Leu Leu Leu Asn Ser Ile Val Leu Gly Phe Ser Ser Phe Leu
                325                 330                 335

Ile Glu Pro Met Cys Arg Lys Val Gly Pro Arg Val Val Trp Val Thr
            340                 345                 350

Ser Asn Phe Met Val Cys Val Ala Met Ala Ala Thr Ala Leu Ile Ser
        355                 360                 365

Phe Trp Ser Leu Lys Asp Tyr His Gly Tyr Val Gln Asp Ala Ile Thr
    370                 375                 380

Ala Ser Thr Ser Ile Lys Ala Val Cys Leu Val Leu Phe Ala Phe Leu
385                 390                 395                 400

Gly Val Pro Leu Ala Ile Leu Tyr Ser Val Pro Phe Ala Val Thr Ala
                405                 410                 415

Gln Leu Ala Ala Thr Lys Gly Gly Gly Gln Gly Leu Cys Thr Gly Val
            420                 425                 430

Leu Asn Ile Ser Ile Val Ile Pro Gln Val Ile Ile Ala Leu Gly Ala
        435                 440                 445

Gly Pro Trp Asp Ala Leu Phe Gly Lys Gly Asn Ile Pro Ala Phe Gly
    450                 455                 460

Val Ala Ser Gly Phe Ala Leu Ile Gly Gly Val Val Gly Val Phe Leu
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Leu Pro Lys Ile Ser Lys Arg Gln Phe Arg Ala Val Ser Ala Gly Gly
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<212> DNA
<213> Oryza sativa

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<211> 400
<212> PRT
<213> Oryza sativa

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Thr Arg Leu Gly Ala Ile Ile Val Tyr Leu Val Gly Phe Trp Leu Leu
35 40 45

Asp Val Gly Asn Asn Ala Thr Gln Gly Pro Cys Arg Ala Phe Leu Ala
50 55 60

Asp Leu Thr Glu Asn Asp Pro Arg Arg Thr Arg Ile Ala Asn Ala Tyr
65 70 75 80

Phe Ser Leu Phe Met Ala Leu Gly Asn Ile Leu Gly Tyr Ala Thr Gly
85 90 95

Ala Tyr Ser Gly Trp Tyr Lys Ile Phe Pro Phe Thr Val Thr Pro Ser
100 105 110

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Ile Ile Leu Val Val Thr Thr Cys Ile Thr Val Ala Ser Val Gln Glu
    130                 135                 140

Pro Gln Ser Phe Gly Ser Asp Glu Ala Asp His Pro Ser Thr Glu Gln
145                 150                 155                 160

Glu Ala Phe Leu Trp Glu Leu Phe Gly Ser Phe Arg Tyr Phe Thr Leu
                165                 170                 175

Pro Val Trp Met Val Leu Ile Val Thr Ala Leu Thr Trp Ile Gly Trp
            180                 185                 190

Phe Pro Phe Ile Leu Phe Asp Thr Asp Trp Met Gly Arg Glu Ile Tyr
        195                 200                 205

Arg Gly Ser Pro Asp Asp Pro Ser Ile Thr Gln Ser Tyr His Asp Gly
    210                 215                 220

Val Arg Met Gly Ser Phe Gly Leu Met Leu Asn Ser Val Leu Leu Gly
225                 230                 235                 240

Phe Thr Ser Ile Val Leu Glu Lys Leu Cys Arg Lys Trp Gly Ala Gly
                245                 250                 255

Leu Val Trp Gly Val Ser Asn Ile Leu Met Ala Leu Cys Phe Val Ala
            260                 265                 270

Met Leu Val Ile Thr Tyr Val Ala Lys Asn Met Asp Tyr Pro Pro Ser
        275                 280                 285

Gly Val Pro Pro Thr Gly Ile Val Ile Ala Ser Leu Val Val Phe Thr
    290                 295                 300

Ile Leu Gly Ala Pro Leu Ala Ile Thr Tyr Ser Ile Pro Tyr Ala Met
305                 310                 315                 320

Ala Ala Ser Arg Val Glu Asn Leu Gly Leu Gly Gln Gly Leu Ala Met
                325                 330                 335

Gly Ile Leu Asn Leu Ala Ile Val Ile Pro Gln Val Ile Val Ser Leu
            340                 345                 350

Gly Ser Gly Pro Trp Asp Gln Leu Phe Gly Gly Gly Asn Ala Pro Ala
        355                 360                 365

Phe Ala Val Ala Ala Ala Ala Ser Phe Ile Gly Gly Leu Val Ala Ile
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Leu Gly Leu Pro Arg Ala Arg Ile Ala Ser Arg Arg Arg Gly His Arg
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<210> 9
<211> 2375
<212> DNA
<213> Oryza sativa

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ctggaatgta ctctgttctt ctagttatgg ctctaacatg gttgtcgtgg tttccctttt 1380
tccttttga tactgactgg atgggacgtg aggtttacca tggggaccca aatggcaact 1440
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attcagttgt ccttggaatt gggtccttcc ttgttgatcc actatgccga ctgatgggtg 1560
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tattaagttg gatctctttt gatttgtact caagtaaact tcaccacatc attggagcaa 1680
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tcacatatag cgttcctttt tctgtgactg ctgagctgac tgctggaaca ggaggtggac 1800
aaggtctggc aacaggagtc ctgaaccttg caatcgttgt tccgcagata gtagtgtcac 1860
taggagcagg tccatgggat gctctctttg ggggagggaa cgtccctgct ttcgccttgg 1920
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actcttacag atctgctggg ttccatggat ttggctgagc agaacaccag ccgcatggtg 2040
tgtaacattg agaaatgcaa ctccattttg ccattcgttt acagtgaaat gattcttttt 2100
acctactact acaacagaat aagctgaaaa gatagagatt aggatagaga gctaggtaac 2160
tagtccagtt aggttgatgt gcatacaagg caattggaag gtgtaagagc tgtatctact 2220
tttttgacag aaaaatgtaa gctctgcccg aatgacatgg cggatagatt ttacaatgga 2280
tgtaatcatg tactatatat aacacgtttt ggtcacagct tgccaagttt catgtatagt 2340
actgctacta aaaaaaaaaa aaaaaaaaaa aaaaa                             2375
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<210> 10
<211> 667
<212> PRT
<213> Oryza sativa

<400> 10

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Pro Ala Pro Ser Pro Arg Glu Ala Asp Gln Arg Ile Asn Gln Thr His
  1               5                  10                  15

Lys His Thr Thr Arg Thr Gln Gln Gln Gly Arg Arg Gln Phe Pro Ile
             20                  25                  30

Leu Pro Arg Pro Ala Ser Pro Arg Leu Ser Leu Thr Leu Gln Thr Pro
         35                  40                  45

Thr Ser Asp Ala Ala Ser Leu Ala Pro Cys Pro Arg Arg Ser His Gln
     50                  55                  60

Thr Leu Pro Asp Leu Arg Pro Ala Met Asp Ser Ala Ala Gly Gly Gly
 65                  70                  75                  80
```

Gly Leu Thr Ala Ile Arg Leu Pro Tyr Arg His Leu Arg Asp Ala Glu
85 90 95

Met Glu Leu Val Ser Leu Asn Gly Gly Thr Pro Arg Gly Gly Ser Pro
100 105 110

Lys Asp Pro Asp Ala Thr His Gln Gln Gly Pro Pro Ala Ala Arg Thr
115 120 125

Thr Thr Thr Arg Lys Leu Val Leu Ala Cys Met Val Ala Ala Gly Val
130 135 140

Gln Phe Gly Trp Ala Leu Gln Leu Ser Leu Leu Thr Pro Tyr Ile Gln
145 150 155 160

Thr Leu Gly Ile Asp His Ala Met Ala Ser Phe Ile Trp Leu Cys Gly
165 170 175

Pro Ile Thr Gly Phe Val Val Gln Pro Cys Val Gly Val Trp Ser Asp
180 185 190

Lys Cys Arg Ser Lys Tyr Gly Arg Arg Arg Pro Phe Ile Leu Ala Gly
195 200 205

Cys Leu Met Ile Cys Phe Ala Val Thr Leu Ile Gly Phe Ser Ala Asp
210 215 220

Leu Gly Tyr Ile Leu Gly Asp Thr Thr Glu His Cys Ser Thr Tyr Lys
225 230 235 240

Gly Ser Arg Phe Arg Ala Ala Ile Ile Phe Val Leu Gly Phe Trp Met
245 250 255

Leu Asp Leu Ala Asn Asn Thr Val Gln Gly Pro Ala Arg Ala Leu Leu
260 265 270

Ala Asp Leu Ser Gly Pro Asp Gln Cys Asn Ser Ala Asn Ala Ile Phe
275 280 285

Cys Thr Trp Met Ala Val Gly Asn Val Leu Gly Phe Ser Ser Gly Ala
290 295 300

Ser Gly Asn Trp His Lys Trp Phe Pro Phe Leu Met Thr Arg Ala Cys
305 310 315 320

Cys Glu Ala Cys Ser Asn Leu Lys Ala Ala Phe Leu Val Ala Val Val
325 330 335

Phe Leu Leu Phe Cys Met Ser Val Thr Leu Tyr Phe Ala Glu Glu Ile
340 345 350

Pro Leu Glu Pro Thr Asp Ala Gln Arg Leu Ser Asp Ser Ala Pro Leu
355 360 365

Leu Asn Gly Ser Arg Asp Asp Asn Asn Ala Ser Asn Glu Pro Arg Asn
370 375 380

Gly Ala Leu Pro Asn Gly His Thr Asp Gly Ser Asn Val Pro Ala Asn
385 390 395 400

```
Ser Asn Ala Glu Asp Ser Asn Ser Asn Arg Glu Asn Val Glu Val Phe
                405                 410                 415

Asn Asp Gly Pro Gly Ala Val Leu Val Asn Ile Leu Thr Ser Met Arg
            420                 425                 430

His Leu Pro Pro Gly Met Tyr Ser Val Leu Leu Val Met Ala Leu Thr
        435                 440                 445

Trp Leu Ser Trp Phe Pro Phe Phe Leu Phe Asp Thr Asp Trp Met Gly
    450                 455                 460

Arg Glu Val Tyr His Gly Asp Pro Asn Gly Asn Leu Ser Glu Arg Lys
465                 470                 475                 480

Ala Tyr Asp Asn Gly Val Arg Glu Gly Ala Phe Gly Leu Leu Leu Asn
                485                 490                 495

Ser Val Val Leu Gly Ile Gly Ser Phe Leu Val Asp Pro Leu Cys Arg
            500                 505                 510

Leu Met Gly Ala Arg Leu Val Trp Ala Ile Ser Asn Phe Thr Val Phe
        515                 520                 525

Ile Cys Met Leu Ala Thr Ala Ile Leu Ser Trp Ile Ser Phe Asp Leu
    530                 535                 540

Tyr Ser Ser Lys Leu His His Ile Ile Gly Ala Asn Lys Thr Val Lys
545                 550                 555                 560

Asn Ser Ala Leu Ile Val Phe Ser Leu Leu Gly Leu Pro Leu Ser Ile
                565                 570                 575

Thr Tyr Ser Val Pro Phe Ser Val Thr Ala Glu Leu Thr Ala Gly Thr
            580                 585                 590

Gly Gly Gly Gln Gly Leu Ala Thr Gly Val Leu Asn Leu Ala Ile Val
        595                 600                 605

Val Pro Gln Ile Val Val Ser Leu Gly Ala Gly Pro Trp Asp Ala Leu
    610                 615                 620

Phe Gly Gly Gly Asn Val Pro Ala Phe Ala Leu Ala Ser Val Phe Ser
625                 630                 635                 640

Leu Gly Ala Gly Val Leu Ala Val Leu Lys Leu Pro Lys Leu Pro Asn
                645                 650                 655

Ser Tyr Arg Ser Ala Gly Phe His Gly Phe Gly
            660                 665
```

<210> 11
<211> 1885
<212> DNA
<213> Glycine max

<400> 11
gcacgaggag agaaagagaa aacatttaaa aaaatataaa aaaaaataaa cctctttctc 60
tctctgaatt tctaagcctc tctcaaaata atggaggagc cacaaccagg acccagcccg 120
ttacgcaaaa tgattttggt gtcgtcaatg gcggccggta tccaattcgg gtgggcccta 180
cagctctccc ttctcacccc atatgttcaa accctaggcg tcccgcatgc ttgggcctca 240

```
tttatttggc tatgtggccc gatatctggg ctgctggtgc agcccattgt gggctacagc  300
agcgaccgat gccaatcccg tttcggtcgt cgccgtccct ttatcctagc cgggtctttg  360
gccgtcgcca ttgctgtgtt cctaattggt tacgcggccg atataggaca cgcggcaggc  420
gacaacctga cccaaaagac tcggccacgt gcagtggcga tcttcgtgat cgggttttgg  480
atcctcgacg tggctaacaa catgctccag ggtccatgcc gtgcctttct gggcgacctc  540
gctgccgggg atgagaaaaa gacaaaggca gccaatgcct tcttctcttt cttcatggcc  600
gtcggcaaca tcctgggcta tgctgcggga tcctacgacg gcctccaccg cctcttcccc  660
ttcacggaaa ccgaggcatg caacgtcttc tgcgcaaacc tcaagagttg cttcttcttc  720
gctatcgtcc tcctggtggt cctcaccacc ttggtgctga ttaccgtgaa agaaactccc  780
tacacgccaa aggcagagaa ggaaaccgaa gatgcagaga agacacactt ctcgtgcttc  840
tgcggagaac tttgtcttgc attcaagggg ctgaagaggc caatgtggat gttgatgttg  900
gtgaccgccg tgaactggat agcgtggttc ccttacttct tgttcgacac cgattggatg  960
ggtcgtgagg tgtacggtgg tgacgtgggg cagaaggcgt acgattcggg agttcatgca 1020
ggttctctag ggctaatgtt gaatgcggtg gtgttggctg tgatgtcatt ggcaattgaa 1080
ccgttggggc gtgtggttgg gggaatcaag tggttgtggg gaatcgttaa catcttgttg 1140
gctatatgct tgggaatgac cgttctcatc acaaagatcg ctgagcatga acgtcttctt 1200
aaccctgctt tggttgggaa cccttccctc ggtatcaaag ttggttccat ggttttcttc 1260
tctgtccttg gaatccctct tgcgattact ttcagtgtcc catttgctct agcatctata 1320
tactccagca cttccggagc aggccaaggt ctatctttgg gtgtccttaa tattgcaatt 1380
gtcgttccac agatgatagt atcaaccata agtggacctt gggatgcctt gttcggcggt 1440
ggaaacttgc ctgcattcgt gttgggtgcg gtggccgccg tcgtgagtgc aatattagca 1500
gttcttctgc tgccaactcc aaagaaagct gatgaggtca gggcttctag cctcaacatg 1560
ggaagtttgc attagtgtgt ctattatagg gctttacatg tttcactttc aaccttgctt 1620
tgatatggga aaaagaactt agtctttaga ttcgaagtgg gtgtgtgcat gtgtatatta 1680
ggtattagac atgggtttta gatgcttcca tagccacttt atgtccaagg acaatcatta 1740
atttgtaaac tttggtgcga caattatacc gaatagaaaa tcattaaaca tacatctttt 1800
tatttcacac attaaaaaaa tatcataata aatatatata ttatcatatt ataaaagaaa 1860
tatttgaaaa aaaaaaaaaa aaaaa                                       1885
```

<210> 12
<211> 494
<212> PRT
<213> Glycine max

<400> 12

```
Met Glu Glu Pro Gln Pro Gly Pro Ser Pro Leu Arg Lys Met Ile Leu
  1               5                  10                  15

Val Ser Ser Met Ala Ala Gly Ile Gln Phe Gly Trp Ala Leu Gln Leu
             20                  25                  30

Ser Leu Leu Thr Pro Tyr Val Gln Thr Leu Gly Val Pro His Ala Trp
         35                  40                  45

Ala Ser Phe Ile Trp Leu Cys Gly Pro Ile Ser Gly Leu Leu Val Gln
     50                  55                  60

Pro Ile Val Gly Tyr Ser Ser Asp Arg Cys Gln Ser Arg Phe Gly Arg
 65                  70                  75                  80

Arg Arg Pro Phe Ile Leu Ala Gly Ser Leu Ala Val Ala Ile Ala Val
                 85                  90                  95

Phe Leu Ile Gly Tyr Ala Ala Asp Ile Gly His Ala Ala Gly Asp Asn
            100                 105                 110

Leu Thr Gln Lys Thr Arg Pro Arg Ala Val Ala Ile Phe Val Ile Gly
        115                 120                 125

Phe Trp Ile Leu Asp Val Ala Asn Asn Met Leu Gln Gly Pro Cys Arg
    130                 135                 140
```

```
Ala Phe Leu Gly Asp Leu Ala Ala Gly Asp Glu Lys Lys Thr Lys Ala
145                 150                 155                 160

Ala Asn Ala Phe Phe Ser Phe Phe Met Ala Val Gly Asn Ile Leu Gly
                165                 170                 175

Tyr Ala Ala Gly Ser Tyr Asp Gly Leu His Arg Leu Phe Pro Phe Thr
            180                 185                 190

Glu Thr Glu Ala Cys Asn Val Phe Cys Ala Asn Leu Lys Ser Cys Phe
        195                 200                 205

Phe Phe Ala Ile Val Leu Leu Val Val Leu Thr Thr Leu Val Leu Ile
    210                 215                 220

Thr Val Lys Glu Thr Pro Tyr Thr Pro Lys Ala Glu Lys Glu Thr Glu
225                 230                 235                 240

Asp Ala Glu Lys Thr His Phe Ser Cys Phe Cys Gly Glu Leu Cys Leu
                245                 250                 255

Ala Phe Lys Gly Leu Lys Arg Pro Met Trp Met Leu Met Leu Val Thr
            260                 265                 270

Ala Val Asn Trp Ile Ala Trp Phe Pro Tyr Phe Leu Phe Asp Thr Asp
        275                 280                 285

Trp Met Gly Arg Glu Val Tyr Gly Gly Asp Val Gly Gln Lys Ala Tyr
    290                 295                 300

Asp Ser Gly Val His Ala Gly Ser Leu Gly Leu Met Leu Asn Ala Val
305                 310                 315                 320

Val Leu Ala Val Met Ser Leu Ala Ile Glu Pro Leu Gly Arg Val Val
                325                 330                 335

Gly Gly Ile Lys Trp Leu Trp Gly Ile Val Asn Ile Leu Leu Ala Ile
            340                 345                 350

Cys Leu Gly Met Thr Val Leu Ile Thr Lys Ile Ala Glu His Glu Arg
        355                 360                 365

Leu Leu Asn Pro Ala Leu Val Gly Asn Pro Ser Leu Gly Ile Lys Val
    370                 375                 380

Gly Ser Met Val Phe Phe Ser Val Leu Gly Ile Pro Leu Ala Ile Thr
385                 390                 395                 400

Phe Ser Val Pro Phe Ala Leu Ala Ser Ile Tyr Ser Ser Thr Ser Gly
                405                 410                 415

Ala Gly Gln Gly Leu Ser Leu Gly Val Leu Asn Ile Ala Ile Val Val
            420                 425                 430

Pro Gln Met Ile Val Ser Thr Ile Ser Gly Pro Trp Asp Ala Leu Phe
        435                 440                 445

Gly Gly Gly Asn Leu Pro Ala Phe Val Leu Gly Ala Val Ala Ala Val
    450                 455                 460
```

```
Val Ser Ala Ile Leu Ala Val Leu Leu Pro Thr Pro Lys Lys Ala
465                 470                 475                 480

Asp Glu Val Arg Ala Ser Ser Leu Asn Met Gly Ser Leu His
                485                 490
```

<210> 13
<211> 1041
<212> DNA
<213> Glycine max

<220>
<221> unsure
<222> (1007)

<400> 13

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ccaccaaaca caacaacaat ctctccaagc cttcctccct ccacacggag gctccgccgc  120
cggaggccag tcccctccgg aagatcatgg tggtggcctc catcgccgcc ggggtgcaat  180
tcgggtgggc cctacagctc tctctactta ccccttacgt ccaactgctg gggattcccc  240
acacttgggc cgccttcatc tggctctgcg gcccaatctc cggcatgctc gtccagccca  300
tcgtgggata ccacagcgac cgctgcacct cccgcttcgg ccgccgccgc cccttcatcg  360
ccgccggctc cctcgccgtc gccatcgccg tcttccttat cggctacgcc gccgacctcg  420
gccacatgtt cggcgactcc ctagccaaaa aaaccgcccc gcgccatcgc atcttcgttg  480
tcggcttctg gattctcgac gtcgcaaaca acatgctaca agggccctgc cgcgccctcc  540
tgggcgacct ctgcgccgga gaacaacgga aaacgcgaaa cgcaaacgcc ttcttctcct  600
tcttcatggc cgtcggaaac gtcctgggct acgccgcggg ctcttacagc ggcctccaca  660
acgtcttccc tttcactaaa acaaaagcat gtgatgttta ctgcgcgaat ttgaagagtt  720
gtttcttcct ctccatcgcg cttcttctca ctctctccac aatcgccttg acctacgtga  780
aggagaaaac ggtgtcgtca gagaaaacgg tgaggagttc ggtggaggag gatgggtccc  840
acgggggcat gccgtgcttc gggcaattat tcggtgcgtt ccgcgaactg aagcgtccca  900
tgtggatcct tctgttggtg acgtgtctga actgggattg cctggttcct tttttgctat  960
tcgacaccga ctgggattgg ggcgtgaggt gtacggaggg aaaattnggg gaaaggaaag 1020
ggtacgataa ggggttccgt t                                          1041
```

<210> 14
<211> 322
<212> PRT
<213> Glycine max

<220>
<221> UNSURE
<222> (311)

<220>
<221> UNSURE
<222> (321)

<400> 14

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Met Glu Pro Leu Ser Ser Thr Lys His Asn Asn Asn Leu Ser Lys Pro
  1               5                  10                  15

Ser Ser Leu His Thr Glu Ala Pro Pro Pro Glu Ala Ser Pro Leu Arg
             20                  25                  30

Lys Ile Met Val Val Ala Ser Ile Ala Ala Gly Val Gln Phe Gly Trp
         35                  40                  45

Ala Leu Gln Leu Ser Leu Leu Thr Pro Tyr Val Gln Leu Leu Gly Ile
     50                  55                  60
```

```
Pro His Thr Trp Ala Ala Phe Ile Trp Leu Cys Gly Pro Ile Ser Gly
 65                  70                  75                  80

Met Leu Val Gln Pro Ile Val Gly Tyr His Ser Asp Arg Cys Thr Ser
                85                  90                  95

Arg Phe Gly Arg Arg Arg Pro Phe Ile Ala Ala Gly Ser Leu Ala Val
            100                 105                 110

Ala Ile Ala Val Phe Leu Ile Gly Tyr Ala Ala Asp Leu Gly His Met
        115                 120                 125

Phe Gly Asp Ser Leu Ala Lys Lys Thr Ala Pro Arg His Arg Ile Phe
    130                 135                 140

Val Val Gly Phe Trp Ile Leu Asp Val Ala Asn Asn Met Leu Gln Gly
145                 150                 155                 160

Pro Cys Arg Ala Leu Leu Gly Asp Leu Cys Ala Gly Glu Gln Arg Lys
                165                 170                 175

Thr Arg Asn Ala Asn Ala Phe Phe Ser Phe Phe Met Ala Val Gly Asn
            180                 185                 190

Val Leu Gly Tyr Ala Ala Gly Ser Tyr Ser Gly Leu His Asn Val Phe
        195                 200                 205

Pro Phe Thr Lys Thr Lys Ala Cys Asp Val Tyr Cys Ala Asn Leu Lys
    210                 215                 220

Ser Cys Phe Phe Leu Ser Ile Ala Leu Leu Leu Thr Leu Ser Thr Ile
225                 230                 235                 240

Ala Leu Thr Tyr Val Lys Glu Lys Thr Val Ser Ser Glu Lys Thr Val
                245                 250                 255

Arg Ser Ser Val Glu Glu Asp Gly Ser His Gly Gly Met Pro Cys Phe
            260                 265                 270

Gly Gln Leu Phe Gly Ala Phe Arg Glu Leu Lys Arg Pro Met Trp Ile
        275                 280                 285

Leu Leu Leu Val Thr Cys Leu Asn Trp Asp Cys Leu Val Pro Phe Leu
    290                 295                 300

Leu Phe Asp Thr Asp Trp Xaa Gly Arg Glu Val Tyr Gly Gly Lys Ile
305                 310                 315                 320

Xaa Gly
```

<210> 15
<211> 578
<212> DNA
<213> Vernonia mespilifolia

<400> 15
gcacgaggtt ggcttggcgg tgtgaaacgg ttatggggtg gcatcaattt ccttctagct 60
gtttgtttgg ccatgacggt ggtggtgacc aaaatggcag actctgaacg acagtttaag 120
acgttgcccg acggtagcaa aaccgcgttg ccaccaggcg gcgacattaa agccggtgct 180
ttgtcaattt ttgccgtcct cggtgcccca ctagctgtga ctttcagtgt tccatgtgct 240

cttgcatcaa tattttctaa cagttcagga gctggacaag gtctatcact tggtgttttg 300
aatctagcaa tcgtcatacc acagatgttc gtatcagtac taagtggacc atgggacgca 360
ctgttcggcg gtggaaactt accagcattt gtggttggag caatttcggc tgcagtaagt 420
gggatattat cgttcaccat gcttccttcg ccacccccag atgtcgtact ttcaaaggtt 480
tccggaggtg ggatgcatta gagagtaaat aactgccact caacacgtcc cgattgtgtc 540
agattgggac atttaggacc aaaaaaaaaa aaaaaaaa 578

<210> 16
<211> 166
<212> PRT
<213> Vernonia mespilifolia

<400> 16
Ala Arg Gly Trp Leu Gly Gly Val Lys Arg Leu Trp Gly Gly Ile Asn
1 5 10 15

Phe Leu Leu Ala Val Cys Leu Ala Met Thr Val Val Val Thr Lys Met
20 25 30

Ala Asp Ser Glu Arg Gln Phe Lys Thr Leu Pro Asp Gly Ser Lys Thr
35 40 45

Ala Leu Pro Pro Gly Gly Asp Ile Lys Ala Gly Ala Leu Ser Ile Phe
50 55 60

Ala Val Leu Gly Ala Pro Leu Ala Val Thr Phe Ser Val Pro Cys Ala
65 70 75 80

Leu Ala Ser Ile Phe Ser Asn Ser Ser Gly Ala Gly Gln Gly Leu Ser
85 90 95

Leu Gly Val Leu Asn Leu Ala Ile Val Ile Pro Gln Met Phe Val Ser
100 105 110

Val Leu Ser Gly Pro Trp Asp Ala Leu Phe Gly Gly Gly Asn Leu Pro
115 120 125

Ala Phe Val Val Gly Ala Ile Ser Ala Ala Val Ser Gly Ile Leu Ser
130 135 140

Phe Thr Met Leu Pro Ser Pro Pro Pro Asp Val Val Leu Ser Lys Val
145 150 155 160

Ser Gly Gly Gly Met His
165

<210> 17
<211> 1062
<212> DNA
<213> Triticum aestivum

<400> 17
ctggaatgcc gtcagtgctc ctcgtcaccg gcctcacctg gctgtcctgg ttccccttca 60
tcctgtacga caccgactgg atgggtcgtg agatctacca cggtgacccc aagggaaccc 120
ccgacgaggc caacgcgttc caggcaggtg tcagggccgg ggcgttcggc ctgctactca 180
actcggtcgt cctggggttc agctcgttcc tgatcgagcc gctgtgcaag aggctaggcc 240
cgcgggtggt gtgggtgtca agcaacttcc tcgtctgcat ctccatggcc gccatttgca 300
tcataagctg gtgggccact caggacctgc atgggtacat ccagcacgcc atcaccgcca 360
gcaaggagat caagatcgtc tccctcgccc tcttcgcctt cctcggaatc cctctcgcca 420
ttctgtacag tgtccctttc gcggtgacgg cgcagctggc ggcgaacaga ggcggtggcc 480
aagggctgtg cacgggcgtg ctgaacatcg ccatcgtgat accccaggtg atcatcgcgg 540

```
tgggggcggg gccgtgggac gagctgttcg gcaagggcaa catcccggcg ttcggcgtgg  600
cgtccgcctt cgcgctcatc ggcggcatcg tcggcatatt cctgctgccc aagatctcca  660
ggcgccagtt ccgggccgtc agcggcggcg gtcactgacc gcgccgcgcg ccggtcggcc  720
tgagcatggc gaaggccgat cgcgccggcc cgaaggtccc agcccagctc ggcatttacc  780
aaattttcgc ataggcgtaa ctaggggct ctcgcctaag gactccgtag agcagaataa  840
gaattgtgag gaacctgtat gtgttgtgtc tgtatgtgcg tgtaagtcag tgcgtgtagc  900
ggaaaatgga cagaggaatg cgggcatcca tcgccggctg gggtgtcgtc tttgggttgt  960
gacttgtgtg tagcaaacca aggtgatcaa gtgaggggaa aagaatggat gatgaacttt 1020
cagcgacaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa                    1062

<210> 18
<211> 232
<212> PRT
<213> Triticum aestivum

<400> 18
Ala Gly Met Pro Ser Val Leu Leu Val Thr Gly Leu Thr Trp Leu Ser
  1               5                  10                  15

Trp Phe Pro Phe Ile Leu Tyr Asp Thr Asp Trp Met Gly Arg Glu Ile
             20                  25                  30

Tyr His Gly Asp Pro Lys Gly Thr Pro Asp Glu Ala Asn Ala Phe Gln
         35                  40                  45

Ala Gly Val Arg Ala Gly Ala Phe Gly Leu Leu Leu Asn Ser Val Val
     50                  55                  60

Leu Gly Phe Ser Ser Phe Leu Ile Glu Pro Leu Cys Lys Arg Leu Gly
 65                  70                  75                  80

Pro Arg Val Val Trp Val Ser Ser Asn Phe Leu Val Cys Ile Ser Met
                 85                  90                  95

Ala Ala Ile Cys Ile Ile Ser Trp Trp Ala Thr Gln Asp Leu His Gly
            100                 105                 110

Tyr Ile Gln His Ala Ile Thr Ala Ser Lys Glu Ile Lys Ile Val Ser
        115                 120                 125

Leu Ala Leu Phe Ala Phe Leu Gly Ile Pro Leu Ala Ile Leu Tyr Ser
    130                 135                 140

Val Pro Phe Ala Val Thr Ala Gln Leu Ala Ala Asn Arg Gly Gly Gly
145                 150                 155                 160

Gln Gly Leu Cys Thr Gly Val Leu Asn Ile Ala Ile Val Ile Pro Gln
                165                 170                 175

Val Ile Ile Ala Val Gly Ala Gly Pro Trp Asp Glu Leu Phe Gly Lys
            180                 185                 190

Gly Asn Ile Pro Ala Phe Gly Val Ala Ser Ala Phe Ala Leu Ile Gly
        195                 200                 205

Gly Ile Val Gly Ile Phe Leu Leu Pro Lys Ile Ser Arg Arg Gln Phe
    210                 215                 220

Arg Ala Val Ser Gly Gly Gly His
225                 230
```

<210> 19
<211> 2083
<212> DNA
<213> Triticum aestivum

<220>
<221> UNSURE
<222> (1093)

<400> 19
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tcctcttcct cctcccgtca gacccttctt ccccggcgtt gatccgatca acgtcctcct 120
ccgtcctgcc cctagatcct tggccgggca gggatacgcc gtagaattga taggcgaacg 180
gacgaggtgg tgatcgccag ggcggcctct ctgccatggc gcgcggcgga ggcaacggcg 240
aggtggagct ctcggtcggg gtcggcggcg gaggcggcgg cgccgccggc gggggggagc 300
aacccgccgt ggacatcagc ctcggcagac tcatcctcgc cggcatggtc gccggcggcg 360
tgcagtacgg atgggcgctc cagctctccc tgctcacccc ctacgtccag actctgggac 420
tttcgcatgc tctgacttca ttcatgtggc tctgcggccc tattgctgga ttagtggttc 480
aaccatgcgt tgggctctac agtgacaagt gcacatctag atggggaaga cgcagaccgt 540
ttattctgac aggatgcatc ctcatctgca ttgctgttgt ggtcgtcggc ttctcggctg 600
acattggagc tggtctgggt gacagcaagg aagagtgcag tctctatcat gggcctcgtt 660
ggcacgctgc aattgtgtat gttcttggat tctggctcct tgacttctcc aacaacactg 720
tgcaaggtcc agcgcgtgct ctgatggctg atttatcagc tcagcatgga cccagtgcag 780
caaattcaat cttctgttct tggatggcgc taggaaatat ccttggatac tcctctggtt 840
ccacaaacaa ctggcacaag tggtttccgt tcctccggac aagggcttgc tgtgaagcct 900
gcgcaaatct gaaaggcgca tttctggtgg cagtgctggt cctggccttc tgtttggtga 960
taactgtgat cttcgccaag gagataccgt acaaggcgat tgcgcccctc ccaacaaagg 1020
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<210> 20
<211> 522
<212> PRT
<213> Triticum aestivum

<400> 20
Met Ala Arg Gly Gly Gly Asn Gly Glu Val Glu Leu Ser Val Gly Val
1 5 10 15

Gly Gly Gly Gly Gly Gly Ala Ala Gly Gly Gly Glu Gln Pro Ala Val
20 25 30

Asp Ile Ser Leu Gly Arg Leu Ile Leu Ala Gly Met Val Ala Gly Gly
35 40 45

```
Val Gln Tyr Gly Trp Ala Leu Gln Leu Ser Leu Leu Thr Pro Tyr Val
     50                  55                  60

Gln Thr Leu Gly Leu Ser His Ala Leu Thr Ser Phe Met Trp Leu Cys
 65                  70                  75                  80

Gly Pro Ile Ala Gly Leu Val Val Gln Pro Cys Val Gly Leu Tyr Ser
                 85                  90                  95

Asp Lys Cys Thr Ser Arg Trp Gly Arg Arg Arg Pro Phe Ile Leu Thr
            100                 105                 110

Gly Cys Ile Leu Ile Cys Ile Ala Val Val Val Val Gly Phe Ser Ala
        115                 120                 125

Asp Ile Gly Ala Gly Leu Gly Asp Ser Lys Glu Glu Cys Ser Leu Tyr
    130                 135                 140

His Gly Pro Arg Trp His Ala Ala Ile Val Tyr Val Leu Gly Phe Trp
145                 150                 155                 160

Leu Leu Asp Phe Ser Asn Asn Thr Val Gln Gly Pro Ala Arg Ala Leu
                165                 170                 175

Met Ala Asp Leu Ser Ala Gln His Gly Pro Ser Ala Ala Asn Ser Ile
            180                 185                 190

Phe Cys Ser Trp Met Ala Leu Gly Asn Ile Leu Gly Tyr Ser Ser Gly
        195                 200                 205

Ser Thr Asn Asn Trp His Lys Trp Phe Pro Phe Leu Arg Thr Arg Ala
    210                 215                 220

Cys Cys Glu Ala Cys Ala Asn Leu Lys Gly Ala Phe Leu Val Ala Val
225                 230                 235                 240

Leu Val Leu Ala Phe Cys Leu Val Ile Thr Val Ile Phe Ala Lys Glu
                245                 250                 255

Ile Pro Tyr Lys Ala Ile Ala Pro Leu Pro Thr Lys Gly Asn Gly Gln
            260                 265                 270

Val Glu Val Glu Pro Thr Gly Pro Leu Ala Val Phe Lys Gly Phe Lys
        275                 280                 285

Asn Leu Pro Pro Met Pro Ser Val Leu Leu Val Thr Gly Leu Thr Trp
    290                 295                 300

Leu Ser Trp Phe Pro Phe Ile Leu Tyr Asp Thr Asp Trp Met Gly Arg
305                 310                 315                 320

Glu Ile Tyr His Gly Asp Pro Lys Gly Thr Pro Asp Glu Ala Asn Ala
                325                 330                 335

Phe Gln Ala Gly Val Arg Ala Gly Ala Phe Gly Leu Leu Leu Asn Ser
            340                 345                 350

Val Val Leu Gly Phe Ser Ser Phe Leu Ile Glu Pro Leu Cys Lys Arg
        355                 360                 365
```

```
Leu Gly Pro Arg Val Val Trp Val Ser Ser Asn Phe Leu Val Cys Leu
    370                 375                 380

Ser Met Ala Ala Ile Cys Ile Ile Ser Trp Trp Ala Thr Gln Asp Leu
385                 390                 395                 400

His Gly Tyr Ile Gln His Ala Ile Thr Ala Ser Lys Glu Ile Lys Ile
                405                 410                 415

Val Ser Leu Ala Leu Phe Ala Phe Leu Gly Ile Pro Leu Ala Ile Leu
            420                 425                 430

Tyr Ser Val Pro Phe Ala Val Thr Ala Gln Leu Ala Ala Lys Arg Gly
        435                 440                 445

Gly Gly Gln Gly Leu Cys Thr Gly Val Leu Asn Ile Ala Ile Val Ile
    450                 455                 460

Pro Gln Val Ile Ile Ala Val Gly Ala Gly Pro Trp Asp Glu Leu Phe
465                 470                 475                 480

Gly Lys Gly Asn Ile Pro Ala Phe Gly Met Ala Ser Ala Phe Ala Leu
                485                 490                 495

Ile Gly Gly Ile Val Gly Ile Phe Leu Leu Pro Lys Ile Ser Arg Arg
            500                 505                 510

Gln Phe Arg Ala Val Ser Gly Gly Gly His
        515                 520
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<210> 21
<211> 2160
<212> DNA
<213> Triticum aestivum

<400> 21

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gcacgagacc acccctctct ctctctctca ctcgcgcttt ccgctctcgt ctcctcctct   60
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ccggcgttga tccgacgcgc cgtagagttg ataggcgaac gaacggggcg gtgatcgtcc  180
gggcggcccc cctgcgacga tggcgcgcgg cggcggcaac ggcgaggtgg agctctcggt  240
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cctcggcagg ctcatcctcg ccggcatggt cgccggcggc gtgcagtacg gatgggcgct  360
ccagctctcc ctgctcaccc cctacgtcca gactctggga ctttcgcatg ctctgacttc  420
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tgttcttgga ttctggctcc ttgacttctc caacaacaca gtgcaaggac cagcgcgtgc  720
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gccgtgggac gagctgttcg gcaagggcaa catcccggcg ttcggcgtgg cgtccgcctt 1680
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<210> 22
<211> 522
<212> PRT
<213> Triticum aestivum

<400> 22
Met Ala Arg Gly Gly Gly Asn Gly Glu Val Glu Leu Ser Val Gly Val
1 5 10 15

Gly Gly Gly Gly Ala Gly Ala Gly Gly Ala Asp Ala Pro Ala Val Asp
20 25 30

Ile Ser Leu Gly Arg Leu Ile Leu Ala Gly Met Val Ala Gly Gly Val
35 40 45

Gln Tyr Gly Trp Ala Leu Gln Leu Ser Leu Leu Thr Pro Tyr Val Gln
50 55 60

Thr Leu Gly Leu Ser His Ala Leu Thr Ser Phe Met Trp Leu Cys Gly
65 70 75 80

Pro Ile Ala Gly Leu Val Val Gln Pro Cys Val Gly Leu Tyr Ser Asp
85 90 95

Lys Cys Thr Ser Arg Trp Gly Arg Arg Arg Pro Phe Ile Leu Thr Gly
100 105 110

Cys Ile Leu Ile Cys Ile Ala Val Val Val Val Gly Phe Ser Ala Asp
115 120 125

Ile Gly Ala Ala Leu Gly Asp Ser Lys Glu Glu Cys Ser Leu Tyr His
130 135 140

Gly Pro Arg Trp His Ala Ala Ile Val Tyr Val Leu Gly Phe Trp Leu
145 150 155 160

Leu Asp Phe Ser Asn Asn Thr Val Gln Gly Pro Ala Arg Ala Leu Met
165 170 175

Ala Asp Leu Ser Ala Gln His Gly Pro Ser Ala Ala Asn Ser Ile Phe
180 185 190

Cys Ser Trp Met Ala Leu Gly Asn Ile Leu Gly Tyr Ser Ser Gly Ser
195 200 205

Thr Asn Asn Trp His Lys Trp Phe Pro Phe Leu Arg Thr Arg Ala Cys
210 215 220

Cys Glu Ala Cys Ala Asn Leu Lys Gly Ala Phe Leu Val Ala Val Leu

225 230 235 240

Phe Leu Ala Phe Cys Leu Val Ile Thr Val Ile Phe Ala Lys Glu Ile
245 250 255

Pro Tyr Lys Ala Ile Ala Pro Leu Pro Thr Lys Ala Asn Gly Gln Val
260 265 270

Glu Val Glu Pro Thr Gly Pro Leu Ala Val Phe Lys Gly Phe Lys Asn
275 280 285

Leu Pro Pro Gly Met Pro Ser Val Leu Leu Val Thr Gly Leu Thr Trp
290 295 300

Leu Ser Trp Phe Pro Phe Ile Leu Tyr Asp Thr Asp Trp Met Gly Arg
305 310 315 320

Glu Ile Tyr His Gly Asp Pro Lys Gly Thr Pro Asp Glu Ala Asn Ala
325 330 335

Phe Gln Ala Gly Val Arg Ala Gly Ala Phe Gly Leu Leu Leu Asn Ser
340 345 350

Val Val Leu Gly Phe Ser Ser Phe Leu Ile Glu Pro Leu Cys Lys Arg
355 360 365

Leu Gly Pro Arg Val Val Trp Val Ser Ser Asn Phe Leu Val Cys Leu
370 375 380

Ser Met Ala Ala Ile Cys Ile Ile Ser Trp Trp Ala Thr Gln Asp Leu
385 390 395 400

His Gly Tyr Ile Gln His Ala Ile Thr Ala Ser Lys Glu Ile Lys Ile
405 410 415

Val Ser Leu Ala Leu Phe Ala Phe Leu Gly Ile Pro Leu Ala Ile Leu
420 425 430

Tyr Ser Val Thr Phe Ala Val Thr Ala Gln Leu Ala Ala Asn Arg Cys
435 440 445

Gly Gly Gln Trp Leu Cys Thr Gly Val Leu Asn Ile Ala Ile Ala Ile
450 455 460

Pro Gln Val Ile Ile Ala Leu Gly Ala Gly Pro Trp Asp Glu Leu Phe
465 470 475 480

Gly Lys Gly Asn Ile Pro Ala Phe Gly Val Ala Ser Ala Phe Ala Leu
485 490 495

Ile Gly Gly Ile Val Gly Ile Phe Leu Leu Pro Lys Ile Ser Arg Leu
500 505 510

Gln Phe Arg Ala Val Ser Gly Gly Gly His
515 520

<210> 23
<211> 2030
<212> DNA
<213> Triticum aestivum

<400> 23
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gcagttcggc tgggcgctcc agctctccct cctcaccccc tacatccaga ctctaggaat 180
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gagtgggaat tggcacaagt ggtttccttt tctgatgact agggcctgtt gtgaagcttg 660
tggtaatttg aaagcagctt tcttgattgc agttgtattc cttctgtttt gcatggctgt 720
taccctctac tttgctgaag agattccact ggaaccaaag gatgcacagc agttatctga 780
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gaatcttgcc atcgtcgctc ctcagatagt agtgtcactc ggagcaggcc catgggacaa 1560
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tcttgctaga tacacagtta ataagactac agatcagata gactaggata aagagatagt 1860
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aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2030

<210> 24
<211> 563
<212> PRT
<213> Triticum aestivum

<400> 24
Gly Ser Asp Ala Ala Arg Pro Lys Glu Glu Gln Gly Ser Gly Ala Gly
1 5 10 15

Ala Gly Glu Gly Gly Met Lys Gly Ala Pro Lys Trp Arg Val Val Leu
20 25 30

Ala Cys Met Val Ala Ala Gly Val Gln Phe Gly Trp Ala Leu Gln Leu
35 40 45

Ser Leu Leu Thr Pro Tyr Ile Gln Thr Leu Gly Ile Asp His Ala Met
50 55 60

Ala Ser Phe Ile Trp Leu Cys Gly Pro Ile Thr Gly Phe Val Val Gln
65 70 75 80

Pro Cys Val Gly Val Trp Ser Asp Lys Cys Arg Ser Lys Tyr Gly Arg
85 90 95

Arg Arg Pro Phe Ile Leu Ala Gly Cys Val Leu Ile Cys Ala Ala Val

```
            100                 105                 110

Thr Leu Val Gly Phe Ser Ala Asp Leu Gly Tyr Met Leu Gly Asp Thr
        115                 120                 125

Thr Glu His Cys Ser Thr Tyr Lys Gly Leu Arg Tyr Arg Ala Ala Phe
    130                 135                 140

Ile Phe Ile Phe Gly Phe Trp Met Leu Asp Leu Ala Asn Asn Thr Val
145                 150                 155                 160

Gln Gly Pro Ala Arg Ala Leu Leu Ala Asp Leu Ser Gly Pro Asp Gln
                165                 170                 175

Cys Asn Ser Ala Asn Ala Ile Phe Cys Ser Trp Met Ala Val Gly Asn
            180                 185                 190

Val Leu Gly Phe Ser Ala Gly Ala Ser Gly Asn Trp His Lys Trp Phe
        195                 200                 205

Pro Phe Leu Met Thr Arg Ala Cys Cys Glu Ala Cys Gly Asn Leu Lys
    210                 215                 220

Ala Ala Phe Leu Ile Ala Val Val Phe Leu Leu Phe Cys Met Ala Val
225                 230                 235                 240

Thr Leu Tyr Phe Ala Glu Glu Ile Pro Leu Glu Pro Lys Asp Ala Gln
                245                 250                 255

Gln Leu Ser Asp Ser Ala Pro Leu Leu Asn Gly Ser Arg Asp Asp His
            260                 265                 270

Asp Ala Ser Ser Glu Gln Thr Asn Gly Gly Leu Ser Asn Gly His Ala
        275                 280                 285

Asp Ala Asn His Val Ser Ala Asn Ser Ser Ala Asp Ala Gly Ser Asn
    290                 295                 300

Ser Asn Lys Asp Asp Val Glu Ala Phe Asn Asp Gly Pro Gly Ala Val
305                 310                 315                 320

Leu Val Lys Ile Leu Thr Ser Met Arg His Leu Pro Pro Gly Met Tyr
                325                 330                 335

Ser Val Leu Leu Val Met Ala Leu Thr Trp Leu Ser Trp Phe Pro Phe
            340                 345                 350

Phe Leu Phe Asp Thr Asp Trp Met Gly Arg Glu Val Tyr His Gly Asp
        355                 360                 365

Pro Lys Gly Asn Ala Ser Glu Arg Lys Ala Tyr Asp Asp Gly Val Arg
    370                 375                 380

Glu Gly Ala Phe Gly Leu Leu Leu Asn Ser Val Val Leu Gly Ile Gly
385                 390                 395                 400

Ser Phe Leu Ile Asp Pro Leu Cys Arg Met Ile Gly Ala Arg Leu Val
                405                 410                 415

Trp Ala Ile Ser Asn Phe Ile Val Phe Ala Cys Met Leu Ala Thr Thr
            420                 425                 430
```

```
Ile Leu Ser Trp Ile Ser Tyr Asp Leu Tyr Ser Ser Lys Leu Gln His
        435                 440                 445

Ile Val Gly Ala Asp Lys Thr Val Lys Thr Ser Ala Leu Ile Leu Phe
    450                 455                 460

Ser Leu Leu Gly Leu Pro Leu Ser Ile Thr Tyr Ser Val Pro Phe Ser
465                 470                 475                 480

Val Thr Ala Glu Leu Thr Ala Gly Thr Gly Gly Gly Gln Gly Leu Ala
                485                 490                 495

Thr Gly Val Leu Asn Leu Ala Ile Val Ala Pro Gln Ile Val Val Ser
            500                 505                 510

Leu Gly Ala Gly Pro Trp Asp Lys Leu Leu Gly Gly Gly Asn Val Pro
        515                 520                 525

Ala Phe Ala Leu Ala Ser Val Phe Ser Leu Ala Ala Gly Val Leu Ala
    530                 535                 540

Val Ile Lys Leu Pro Lys Leu Ser Asn Asn Tyr Gln Ser Ala Gly Phe
545                 550                 555                 560

His Met Gly
```

<210> 25
<211> 501
<212> PRT
<213> Daucus carota

<400> 25

```
Met Ala Gly Pro Glu Ala Asp Arg Asn Arg His Arg Gly Gly Ala Thr
  1               5                  10                  15

Ala Ala Pro Pro Pro Arg Ser Arg Val Ser Leu Arg Leu Leu Leu Arg
             20                  25                  30

Val Ala Ser Val Ala Cys Gly Ile Gln Phe Gly Trp Ala Leu Gln Leu
         35                  40                  45

Ser Leu Leu Thr Pro Tyr Val Gln Glu Leu Gly Ile Pro His Ala Trp
     50                  55                  60

Ser Ser Ile Ile Trp Leu Cys Gly Pro Leu Ser Gly Leu Leu Val Gln
 65                  70                  75                  80

Pro Ile Val Gly His Met Ser Asp Gln Cys Thr Ser Lys Tyr Gly Arg
                 85                  90                  95

Arg Arg Pro Phe Ile Val Ala Gly Gly Thr Ala Ile Ile Leu Ala Val
            100                 105                 110

Ile Ile Ile Ala His Ser Ala Asp Ile Gly Gly Leu Leu Gly Asp Thr
        115                 120                 125

Ala Asp Asn Lys Thr Met Ala Ile Val Ala Phe Val Ile Gly Phe Trp
    130                 135                 140
```

```
Ile Leu Asp Val Ala Asn Asn Met Thr Gln Gly Pro Cys Arg Ala Leu
145                 150                 155                 160

Leu Ala Asp Leu Thr Gly Asn Asp Ala Arg Arg Thr Arg Val Ala Asn
                165                 170                 175

Ala Tyr Phe Ser Leu Phe Met Ala Ile Gly Asn Val Leu Gly Tyr Ala
            180                 185                 190

Thr Gly Ala Tyr Ser Gly Trp Tyr Lys Val Phe Pro Phe Ser Leu Thr
        195                 200                 205

Ser Ser Cys Thr Ile Asn Cys Ala Asn Leu Lys Ser Ala Phe Tyr Ile
    210                 215                 220

Asp Ile Ile Phe Ile Ile Ile Thr Thr Tyr Ile Ser Ile Ser Ala Ala
225                 230                 235                 240

Lys Glu Arg Pro Arg Ile Ser Ser Gln Asp Gly Pro Gln Phe Ser Glu
                245                 250                 255

Asp Gly Thr Ala Gln Ser Gly His Ile Glu Glu Ala Phe Leu Trp Glu
            260                 265                 270

Leu Phe Gly Thr Phe Arg Leu Leu Pro Gly Ser Val Trp Val Ile Leu
        275                 280                 285

Leu Val Thr Cys Leu Asn Trp Ile Gly Trp Phe Pro Phe Ile Leu Phe
    290                 295                 300

Asp Thr Asp Trp Met Gly Arg Glu Ile Tyr Gly Gly Glu Pro Asn Gln
305                 310                 315                 320

Gly Gln Ser Tyr Ser Asp Gly Val Arg Met Gly Ala Phe Gly Leu Met
                325                 330                 335

Met Asn Ser Val Val Leu Gly Ile Thr Ser Val Leu Met Glu Lys Leu
            340                 345                 350

Cys Arg Ile Trp Gly Ser Gly Phe Met Trp Gly Leu Ser Asn Ile Leu
        355                 360                 365

Met Thr Ile Cys Phe Phe Ala Met Leu Leu Ile Thr Phe Ile Ala Lys
    370                 375                 380

Asn Met Asp Tyr Gly Thr Asn Pro Pro Pro Asn Gly Ile Val Ile Ser
385                 390                 395                 400

Ala Leu Ile Val Phe Ala Ile Leu Gly Ile Pro Leu Ala Ile Thr Tyr
                405                 410                 415

Ser Val Pro Tyr Ala Leu Val Ser Thr Arg Ile Glu Ser Leu Gly Leu
            420                 425                 430

Gly Gln Gly Leu Ser Met Gly Val Leu Asn Leu Ala Ile Val Val Pro
        435                 440                 445

Gln Val Ile Val Ser Leu Gly Ser Gly Pro Trp Asp Gln Leu Phe Gly
    450                 455                 460

Gly Gly Asn Ser Pro Ala Phe Val Val Ala Ala Leu Ser Ala Phe Ala
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```
465                 470                 475                 480

Ala Gly Leu Ile Ala Leu Ile Ala Ile Arg Arg Pro Arg Val Asp Lys
                485                 490                 495

Ser Arg Leu His His
            500
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<210> 26
<211> 537
<212> PRT
<213> Oryza sativa

<400> 26

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Met Ala Arg Gly Ser Gly Ala Gly Gly Gly Gly Gly Gly Gly Gly Gly
  1               5                  10                  15

Gly Leu Glu Leu Ser Val Gly Val Gly Gly Gly Gly Ala Arg Gly Gly
             20                  25                  30

Gly Gly Gly Glu Ala Ala Ala Ala Val Glu Thr Ala Ala Pro Ile Ser
         35                  40                  45

Leu Gly Arg Leu Ile Leu Ser Gly Met Val Ala Gly Gly Val Gln Tyr
     50                  55                  60

Gly Trp Ala Leu Gln Leu Ser Leu Leu Thr Pro Tyr Val Gln Thr Leu
 65                  70                  75                  80

Gly Leu Ser His Ala Leu Thr Ser Phe Met Trp Leu Cys Gly Pro Ile
                85                  90                  95

Ala Gly Met Val Val Gln Pro Cys Val Gly Leu Tyr Ser Asp Arg Cys
            100                 105                 110

Thr Ser Lys Trp Gly Arg Arg Arg Pro Tyr Ile Leu Thr Gly Cys Val
        115                 120                 125

Leu Ile Cys Leu Ala Val Val Val Ile Gly Phe Ser Ala Asp Ile Gly
    130                 135                 140

Tyr Ala Met Gly Asp Thr Lys Glu Asp Cys Ser Val Tyr His Gly Ser
145                 150                 155                 160

Arg Trp His Ala Ala Ile Val Tyr Val Leu Gly Phe Trp Leu Leu Asp
                165                 170                 175

Phe Ser Asn Asn Thr Val Gln Gly Pro Ala Arg Ala Leu Met Ala Asp
            180                 185                 190

Leu Ser Gly Arg His Gly Pro Gly Thr Ala Asn Ser Ile Phe Cys Ser
        195                 200                 205

Trp Met Ala Met Gly Asn Ile Leu Gly Tyr Ser Ser Gly Ser Thr Asn
    210                 215                 220

Asn Trp His Lys Trp Phe Pro Phe Leu Lys Thr Arg Ala Cys Cys Glu
225                 230                 235                 240

Ala Cys Ala Asn Leu Lys Gly Ala Phe Leu Val Ala Val Ile Phe Leu
                245                 250                 255
```

```
Ser Leu Cys Leu Val Ile Thr Leu Ile Phe Ala Lys Glu Val Pro Phe
            260                 265                 270

Lys Gly Asn Ala Ala Leu Pro Thr Lys Ser Asn Glu Pro Ala Glu Pro
        275                 280                 285

Glu Gly Thr Gly Pro Leu Ala Val Leu Lys Gly Phe Arg Asn Leu Pro
    290                 295                 300

Thr Gly Met Pro Ser Val Leu Ile Val Thr Gly Leu Thr Trp Leu Ser
305                 310                 315                 320

Trp Phe Pro Phe Ile Leu Tyr Asp Thr Asp Trp Met Gly Arg Glu Ile
                325                 330                 335

Tyr His Gly Asp Pro Lys Gly Thr Asp Pro Gln Ile Glu Ala Phe Asn
            340                 345                 350

Gln Gly Val Arg Ala Gly Ala Phe Gly Leu Leu Leu Asn Ser Ile Val
        355                 360                 365

Leu Gly Phe Ser Ser Phe Leu Ile Glu Pro Met Cys Arg Lys Val Gly
    370                 375                 380

Pro Arg Val Val Trp Val Thr Ser Asn Phe Leu Val Cys Ile Ala Met
385                 390                 395                 400

Ala Ala Thr Ala Leu Ile Ser Phe Trp Ser Leu Lys Asp Phe His Gly
                405                 410                 415

Thr Val Gln Lys Ala Ile Thr Ala Asp Lys Ser Ile Lys Ala Val Cys
            420                 425                 430

Leu Val Leu Phe Ala Phe Leu Gly Val Pro Leu Ala Val Leu Tyr Ser
        435                 440                 445

Val Pro Phe Ala Val Thr Ala Gln Leu Ala Ala Thr Arg Gly Gly Gly
    450                 455                 460

Gln Gly Leu Cys Thr Gly Val Leu Asn Ile Ser Ile Val Ile Pro Gln
465                 470                 475                 480

Val Val Ile Ala Leu Gly Ala Gly Pro Trp Asp Glu Leu Phe Gly Lys
                485                 490                 495

Gly Asn Ile Pro Ala Phe Gly Leu Ala Ser Gly Phe Ala Leu Ile Gly
            500                 505                 510

Gly Val Ala Gly Ile Phe Leu Leu Pro Lys Ile Ser Lys Arg Gln Phe
        515                 520                 525

Trp Ser Val Ser Met Gly Gly Gly His
    530                 535
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<210> 27
<211> 533
<212> PRT
<213> Ricinus communis

<400> 27

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Met Gln Ser Ser Thr Ser Lys Glu Asn Lys Gln Pro Pro Ser Ser Gln
 1               5                  10                  15

Pro His Pro Pro Pro Leu Met Val Ala Gly Ala Ala Glu Pro Asn Ser
            20                  25                  30

Ser Pro Leu Arg Lys Val Val Met Val Ala Ser Ile Ala Ala Gly Ile
        35                  40                  45

Gln Phe Gly Trp Ala Leu Gln Leu Ser Leu Leu Thr Pro Tyr Val Gln
    50                  55                  60

Leu Leu Gly Ile Pro His Thr Trp Ala Ala Phe Ile Trp Leu Cys Gly
65                  70                  75                  80

Pro Ile Ser Gly Met Leu Val Gln Pro Ile Val Gly Tyr His Ser Asp
                85                  90                  95

Arg Cys Thr Ser Arg Phe Gly Arg Arg Arg Pro Phe Ile Ala Ser Gly
            100                 105                 110

Ala Ala Phe Val Ala Ile Ala Val Phe Leu Ile Gly Tyr Ala Ala Asp
        115                 120                 125

Leu Gly His Leu Ser Gly Asp Ser Leu Asp Lys Ser Pro Lys Thr Arg
    130                 135                 140

Ala Ile Ala Ile Phe Val Val Gly Phe Trp Ile Leu Asp Val Ala Asn
145                 150                 155                 160

Asn Met Leu Gln Gly Pro Cys Arg Ala Leu Leu Ala Asp Leu Ser Gly
                165                 170                 175

Thr Ser Gln Lys Lys Thr Arg Thr Ala Asn Ala Leu Phe Ser Phe Phe
            180                 185                 190

Met Ala Val Gly Asn Val Leu Gly Tyr Ala Ala Gly Ala Tyr Thr His
        195                 200                 205

Leu Tyr Lys Leu Phe Pro Phe Thr Lys Thr Thr Ala Cys Asp Val Tyr
    210                 215                 220

Cys Ala Asn Leu Lys Ser Cys Phe Phe Ile Ser Ile Val Leu Leu Leu
225                 230                 235                 240

Ser Leu Thr Val Leu Ala Leu Ser Tyr Val Lys Glu Lys Pro Trp Ser
                245                 250                 255

Pro Asp Gln Ala Val Asp Asn Ala Glu Asp Asp Thr Ala Ser Gln Ala
            260                 265                 270

Ser Ser Ser Ala Gln Pro Met Pro Phe Phe Gly Glu Ile Leu Gly Ala
        275                 280                 285

Phe Lys Asn Leu Lys Arg Pro Met Trp Ile Leu Leu Leu Val Thr Cys
    290                 295                 300

Leu Asn Trp Ile Ala Trp Phe Pro Phe Leu Leu Phe Asp Thr Asp Trp
305                 310                 315                 320

Met Gly Arg Glu Val Tyr Gly Gly Asp Ser Ser Gly Ser Ala Glu Gln
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                325                 330                 335

Leu Lys Leu Tyr Asp Arg Gly Val Arg Ala Gly Ala Leu Gly Leu Met
            340                 345                 350

Leu Asn Ser Val Val Leu Gly Phe Thr Ser Leu Gly Val Glu Val Leu
        355                 360                 365

Ala Arg Gly Val Gly Gly Val Lys Arg Leu Trp Gly Ile Val Asn Phe
    370                 375                 380

Val Leu Ala Val Cys Leu Ala Met Thr Val Leu Val Thr Lys Gln Ala
385                 390                 395                 400

Glu Ser Thr Arg Arg Phe Ala Thr Val Ser Gly Gly Ala Lys Val Pro
                405                 410                 415

Leu Pro Pro Pro Ser Gly Val Lys Ala Gly Ala Leu Ala Leu Phe Ala
            420                 425                 430

Val Met Gly Val Pro Gln Ala Ile Thr Tyr Ser Ile Pro Phe Ala Leu
        435                 440                 445

Ala Ser Ile Phe Ser Asn Thr Ser Gly Ala Gly Gln Gly Leu Ser Leu
    450                 455                 460

Gly Val Leu Asn Leu Ser Ile Val Ile Pro Gln Met Ile Val Ser Val
465                 470                 475                 480

Ala Ala Gly Pro Trp Asp Ala Leu Phe Gly Gly Gly Asn Leu Pro Ala
                485                 490                 495

Phe Val Val Gly Ala Val Ala Ala Leu Ala Ser Gly Ile Phe Ala Leu
            500                 505                 510

Thr Met Leu Pro Ser Pro Gln Pro Asp Met Pro Ser Ala Lys Ala Leu
        515                 520                 525

Thr Ala Ala Phe His
    530

<210> 28
<211> 523
<212> PRT
<213> Vicia faba

<400> 28
Met Glu Pro Leu Ser Ser Thr Lys Gln Ile Asn Asn Asn Asn Asn Leu
  1               5                  10                  15

Ala Lys Pro Ser Ser Leu His Val Glu Thr Gln Pro Leu Glu Pro Ser
             20                  25                  30

Pro Leu Arg Lys Ile Met Val Val Ala Ser Ile Ala Ala Gly Val Gln
         35                  40                  45

Phe Gly Trp Ala Leu Gln Leu Ser Leu Leu Thr Pro Tyr Val Gln Leu
     50                  55                  60

Leu Gly Ile His His Thr Trp Ala Ala Tyr Ile Trp Leu Cys Gly Pro
 65                  70                  75                  80
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Ile Ser Gly Met Leu Val Gln Pro Ile Val Gly Tyr His Ser Asp Arg
                 85                  90                  95

Cys Thr Ser Arg Phe Gly Arg Arg Arg Pro Phe Ile Ala Ala Gly Ser
            100                 105                 110

Ile Ala Val Ala Ile Ala Val Phe Leu Ile Gly Tyr Ala Ala Asp Leu
        115                 120                 125

Gly His Ser Phe Gly Asp Ser Leu Asp Gln Lys Val Arg Pro Arg Ala
    130                 135                 140

Ile Gly Ile Phe Val Val Gly Phe Trp Ile Leu Asp Val Ala Asn Asn
145                 150                 155                 160

Met Leu Gln Gly Pro Cys Arg Ala Leu Leu Gly Asp Leu Cys Ala Gly
                165                 170                 175

Asn Gln Arg Lys Thr Arg Asn Ala Asn Ala Phe Phe Ser Phe Phe Met
            180                 185                 190

Ala Val Gly Asn Val Leu Gly Tyr Ala Ala Gly Ala Tyr Ser Lys Leu
        195                 200                 205

Tyr His Val Phe Pro Phe Thr Lys Thr Lys Ala Cys Asn Val Tyr Cys
    210                 215                 220

Ala Asn Leu Lys Ser Cys Phe Phe Leu Ser Ile Ala Leu Leu Thr Val
225                 230                 235                 240

Leu Ala Thr Ser Ala Leu Ile Tyr Val Lys Glu Thr Ala Leu Thr Pro
                245                 250                 255

Glu Lys Thr Val Val Thr Thr Glu Asp Gly Gly Ser Ser Gly Gly Met
            260                 265                 270

Pro Cys Phe Gly Gln Leu Ser Gly Ala Phe Lys Glu Leu Lys Arg Pro
        275                 280                 285

Met Trp Ile Leu Leu Leu Val Thr Cys Leu Asn Trp Ile Ala Trp Phe
    290                 295                 300

Pro Phe Leu Leu Phe Asp Thr Asp Trp Met Gly Lys Glu Val Tyr Gly
305                 310                 315                 320

Gly Thr Val Gly Glu Gly His Ala Tyr Asp Met Gly Val Arg Glu Gly
                325                 330                 335

Ala Leu Gly Leu Met Leu Asn Ser Val Val Leu Gly Ala Thr Ser Leu
            340                 345                 350

Gly Val Asp Ile Leu Ala Arg Gly Val Gly Gly Val Lys Arg Leu Trp
        355                 360                 365

Gly Ile Val Asn Phe Leu Leu Ala Ile Cys Leu Gly Leu Thr Val Leu
    370                 375                 380

Val Thr Lys Leu Ala Gln His Ser Arg Gln Tyr Ala Pro Gly Thr Gly
385                 390                 395                 400
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BT

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Ala Leu Gly Asp Pro Leu Pro Pro Ser Glu Gly Ile Lys Ala Gly Ala
                405                 410                 415

Leu Thr Leu Phe Ser Val Leu Gly Val Pro Leu Ala Ile Thr Tyr Ser
            420                 425                 430

Ile Pro Phe Ala Leu Ala Ser Ile Phe Ser Ser Thr Ser Gly Ala Gly
        435                 440                 445

Gln Gly Leu Ser Leu Gly Val Leu Asn Leu Ala Ile Val Ile Pro Gln
    450                 455                 460

Met Phe Val Ser Val Leu Ser Gly Pro Trp Asp Ala Leu Phe Gly Gly
465                 470                 475                 480

Gly Asn Leu Pro Ala Phe Val Val Gly Ala Val Ala Ala Leu Ala Ser
                485                 490                 495

Gly Ile Leu Ser Ile Ile Leu Leu Pro Ser Pro Pro Pro Asp Met Ala
            500                 505                 510

Lys Ser Val Ser Ala Thr Gly Gly Gly Phe His
        515                 520
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SUB CL CONT.

Concluded